

Integrating the Science and Technology of Environmental Assessment Across Federal Agencies

Author: Gerard F. Laniak

Key Words: Multi-media Modeling, Inter-Agency Collaboration, Modeling Frameworks and Infrastructures

Seven Federal Agencies are conducting collaborative research to provide the next generation of environmental models for analyzing complex multimedia, multi-stressor contamination problems. Among the primary objectives of the Memorandum of Understanding (MOU) are 1) to provide a mechanism for the cooperating Federal Agencies to pursue a common technology in multimedia environmental modeling with a shared scientific basis, 2) to reduce redundancies and improve the common technology through exchange and comparisons of multimedia environmental models, software and related databases, 3) to exchange information related to multimedia environmental modeling tools and supporting scientific information for environmental risk assessments, protocols for establishing linkages between disparate databases and models, and development and use of a common model-data framework, and 4) to facilitate the establishment of working partnerships among the cooperating Federal Agencies' technical staff in order to enhance productivity and mutual benefit through collaboration on mutually defined research studies.

The collaborating agencies are (in addition to EPA/ORD): The United States Nuclear Regulatory Commission, Office of Nuclear Regulatory Research; The United States Army Corps of Engineers, Engineer Research and Development Center; The United States Department of Energy, Office of Science and Technology; The United States Department of Interior, U.S. Geological Survey; The United States Department of Agriculture, Agricultural Research Service; The United States Department of Agriculture, Natural Resources Conservation Service.

The MOU is organized with a Steering Committee and several technical workgroups. The Steering Committee includes senior officials from each Agency, and the workgroups are comprised of researchers from each Agency. To date workgroups have developed research plans (approved by the Steering Committee), sponsored sessions at professional conferences, and conducted workshops targeting details of potential collaborative projects. The current workgroups include:

- Software System Design and Implementation for Environmental Modeling
- Uncertainty Analysis and Parameter Estimation
- Distributive Watershed/Water Quality Modeling
- Reactive Solute Transport

Contact Information: Gerard F. Laniak
Environmental Engineer
EPA/ORD/NERL/ERD
706-355-8316
laniak.gerry@epa.gov